

The following claims are presented for examination:

- 1. (Currently Amended)** A method comprising:
receiving , at a processor-based device, a communication that comprises at least one word; and
classifying the communication by utilizing a joint classifier based on application of word information and word class information.
 - 2. (Cancelled)**
 - 3. (Currently Amended)** The method of claim **[[2]] 1** wherein ~~a natural language call routing element of the~~ processor-based device switch routes the communication to a particular one of a plurality of destination terminals of the system based on a determined category.
 - 4. (Previously Presented)** The method of claim 1 wherein an automatic word class clustering algorithm is utilized to generate the word class information.
 - 5. (Previously Presented)** The method of claim 1 wherein the word information and word class information utilized is selected using information gain based term selection.
 - 6. (Currently Amended)** The method of claim 5 wherein the information gain based term selection determines an information gain value for each of **[[the]] a** plurality of terms, the information gain value being indicative of entropy variations over a plurality of possible categories, and being determined as a function of a perplexity computation for an associated classification task.
 - 7. (Currently Amended)** The method of claim 1 wherein **[[the]] a** plurality of terms is generated by appending a class corpus to a word corpus.
 - 8. (Currently Amended)** The method of claim 1 wherein **[[the]] a** plurality of terms is generated by joining sets of multiple words with corresponding sets of word classes.
 - 9. (Currently Amended)** The method of claim 1 wherein **[[the]] a** plurality of terms is generated by interleaving individual words with their corresponding word classes.
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10. (Currently Amended) A method comprising:
receiving , at a processor-based device, a communication that comprises at least one word; and
classifying the communication by utilizing a joint classifier based on word information and word class information,
wherein the ~~combination of word information and word class information~~
joint classifier comprises at least one term-category matrix characterizing words and word classes selected using information gain based term selection.

11. (Original) The method of claim 10 wherein a cell i, j of the term-category matrix comprises information indicative of a relationship involving an i -th selected term and a j -th category.

12. (Currently Amended) A method comprising:
receiving , at a processor-based device, a communication that comprises at least one word; and
classifying the communication by utilizing a joint classifier to determine a category for the communication based on word information and word class information; **[[and]]**
wherein the determination of the joint classifier is based on an information gain based term selection; and

wherein the information gain based term selection:

- i) calculates information gain values for each word in the first communication, a given one of the terms comprising a word or a word class,
- ii) sorts the terms by their information gain values in a descending order,
- iii) sets a threshold as the information gain value corresponding to a specified percentile, and
- iv) selects the terms having an information gain value greater than or equal to the threshold.

13. (Currently Amended) The method of claim 12 wherein the selected terms are processed to form a term-category matrix utilizable by the joint classifier in determining one or more categories for the at least one word, plurality of words.

14. (Previously Presented) The method of claim 12 wherein the joint classifier comprises a joint latent semantic indexing classifier.

15. (Currently Amended) An apparatus comprising:
a processor-based device operative to:
receive a communication that comprises at least one word; and
to classify the communication by utilizing a joint classifier based on application of
word information and word class information.

16. (Previously Presented) The apparatus of claim 15 wherein the processor-based device comprises a switch.

17. (Original) The apparatus of claim 15 wherein the processor-based device comprises a processor coupled to a memory.

18. (Currently Amended) An article of manufacture comprising a machine-readable storage medium containing software code that when executed implements the steps of:
receiving a communication that comprises at least one word; and
classifying the communication by utilizing a joint classifier based on application of word information and word class information.